

exclusivity under this application be equitably defined in accordance with claims appended hereto and their equivalents.--

### In the Claims

Claims 43-143 were pending as a result of the Second Preliminary Amendment submitted for the above-identified application on 2/6/2001. Please further amend the claims as follows, including withdrawing claims 57-58, 63, 78, 80, 114 as indicated and adding new claims 144-174 as shown:

-- 43. (Amended once) An automated medical messaging system for use by patients and authorized medical service providers, the messaging system [.] comprising:

[a message including at least one memory location having at least two information segments;]

(a) a first information storage and retrieval section [segment] for storing respective first information logically associated with a given patient, where the stored first information can be added to by, and/or retrieved [accessible] by an authorized medical service provider who is associated with the given patient;

(b) a second information storage and retrieval section [segment] for storing respective second information which is logically associated with said given patient and which is further logically associated with said first information storage and retrieval section, where the stored second information can be optionally custom modified by, and/or added to by said authorized medical service provider, and where the stored and optionally customized and/or augmented second information can be retrieved by said given [accessible by a] patient, and, further wherein:

(a.1) the first information storage and retrieval section [segment] is not accessible by the given patient; and

(a.2) upload information relating to the given patient can be automatically loaded into the first information storage and retrieval section to define at least part of said first information.--

-- 44. (Amended once) A machine-managed method for providing [a] medical care related messages to respective [a] patients who are under care of an associated one or more medical service providers, the machine-managed method comprising:

[in a medical messaging system, comprising the steps of: providing a message including an information segment;]

(a) creating first information in a corresponding first information storage and retrieval section, where the first information is logically associated with a given patient and wherein the first information storage and retrieval section is machine managed so that said first information can be added to by, and/or retrieved by a medical service provider who is associated with the given patient; and

[segment stores information accessible by a medical provider; and,]

(b) creating second information in a corresponding second information storage and retrieval section, where the second information is logically associated with the first information storage and retrieval section; and

(c) automatically controlling access to the second information so that said second information can be retrieved by the given [wherein the information segment information is accessible by a] patient only after the medical service provider has accessed [accesses] the first information in the [information segment] corresponding first information storage and retrieval section.--

-- 45. (Amended once) A machine-managed method for providing [a] medical care related messages to respective [a] patients who are under care of an associated one or more medical service providers, the machine-managed method comprising: [in a medical messaging system, comprising the steps of: providing a message including an information segment;]

(a) automatically creating result feedback information in a corresponding first information storage and retrieval section, where the result feedback information is logically associated with a given patient and wherein the first information storage and retrieval section is machine managed so that said automatically created, result feedback information can be retrieved by and edited by a medical service provider who is associated with the given patient; and

[wherein the information segment stores information accessible by a medical provider; and,]

(b) automatically controlling access to the feedback information so that said feedback information can be retrieved by the given [wherein the information segment information is accessible by a] patient only after the medical service provider has edited [edits] the automatically created feedback information in the [information segment] corresponding first information storage and retrieval section.--

-- 46. (Amended once) A machine-automated method for informing patients of developments in medical care services provided by one or more medical service

providers associated with the respective patients, the machine-automated informing method comprising:

[providing a message to a patient in a medical messaging system, comprising the steps of: providing a message including at least two information segments;]

(a) storing for-provider information relating to a given patient in [wherein] a first information storage segment which is logically associated with the given patient, where the first information storage segment is [stores information] accessible by [a] at least one of said medical service providers but is not accessible by the given patient; and

(b) storing for-patient information relating to the given patient in [wherein] a second information storage segment which is logically associated with the given patient, where the second information storage segment is [stores information] accessible by the given [a] patient

[-; and, wherein the first information segment is not accessible by the patient].--

-- 47. (Amended once) The machine-automated informing method of Claim 46, further comprising [the step of]:

(c) after storing the for-patient information, automatically polling the second information storage segment to determine whether the given patient has retrieved the stored for-patient information from the second information storage segment

[generating a notification signal to the medical provider in response to a patient not retrieving information in the second information segment].--

-- 48. (Amended once) The machine-automated informing method of Claim 47 and further comprising: [ , wherein the notification signal is generated after a time period]

(d) if said polling of the second information storage segment indicates that the given patient has not retrieved the stored for-patient information within a pre-specified time period from the second information storage segment, automatically issuing a corresponding, past-due retrieval alert signal for retrieval by one or more of said medical service providers that are associated with the given patient .--

-- 49. (Amended once) The machine-automated informing method of Claim 48, wherein at least one of the medical service providers associated with the given patient can specify the time period between storage of the for-patient information and allowed issuance of the corresponding, past-due retrieval alert signal if the given patient has not retrieved the stored for-patient information within said time period .--

-- 50. (Amended once) The machine-automated informing method of Claim 46, wherein the first information storage segment of the given patient is accessible only by a pre-specified one of the medical service providers .--

-- 51. (Amended once) The method of Claim 46, further comprising [the step of]:

(c) automatically generating a [list] set of plural messages for a respective one or more patients by storing in respective first information storage segments of said patients,

a corresponding plurality of for-provider messages relating to the respective patients  
[wherein each message has information stored in the first information segment].--

-- 52. (Amended once) The method of Claim 46, further comprising [the step of]:  
(c) providing to one of said medical service providers, a message-summarizing  
title which is logically associated with a prerecorded, longer message that can be  
correspondingly used as the for-patient information which is to be stored in the second  
information storage segment of a given patient.--

-- 53. (Amended once) The method of Claim [46,] 52 and further comprising [the  
step of]:  
(d) storing the message-summarizing title [information] in the first information  
storage segment of a given patient; and  
(e) storing the corresponding prerecorded, longer message in the second  
information storage segment of the given patient.--

-- 54. (Amended once) The method of Claim [46,] 53 and further comprising  
[the step of]:  
(f) storing customized further information in the second information storage  
segment, where the customized further information augments the prerecorded, longer  
message and is customized for the given patient.--

-- 55. (Amended once) The machine-automated informing method of Claim 46  
and further comprising: [, wherein]  
(c) causing an automated expert system to process upload data relating to a  
given patient and to store [-s] corresponding for-provider information into the first  
information storage segment of the given patient.--

-- 56. (Amended once) The machine-automated informing method of Claim [46,]  
55 and further comprising: [wherein]  
(d) causing the [an] expert system to further store corresponding, for-patient  
[stores] information into the second information storage segment of the given patient.--

(Claims 57-58 are withdrawn without prejudice.)

[57. The method of claim 46, wherein the first information segment is associated  
with a patient.]

[58. The method of claim 46, wherein the first information segment is associated  
with a patient mailbox.]

-- 59. (Amended once) The machine-automated informing method of Claim 46

wherein at least part of said for-provider information can be automatically uploaded from an upload source and stored automatically in a first information storage segment which is logically associated with a given patient, and where the method further comprises:

[comprising the step of:]

(c) in response to said automatic uploading of at least part of the for-provider information, automatically generating an upload-received notification signal for retrieval by one or more of said medical service providers associated with the given patient

[responsive to information being stored in the first information segment].--

-- 60. (Amended once) The machine-automated informing method of Claim 46 wherein at least part of said for-patient information can be automatically uploaded from an upload source and stored automatically in a second information storage segment which is logically associated with a given patient, and where the method further comprises: [comprising the step of:]

(c) in response to said automatic uploading of at least part of the for-patient information, automatically generating an upload-received notification signal for retrieval by one or more of said medical service providers associated with the given patient, where the notification signal indicates [indicating] that upload information [is] has been automatically stored in the second information storage segment of the given patient.--

-- 61. (Amended once) The machine-automated informing method of Claim [46] 60 wherein a pre-specified deadline can be established for when said at least part of the for-patient information is to be uploaded into the second information storage segment of the given patient, and where said method further comprises: [further comprising the step of:]

(d) automatically checking the second information storage segment of the given patient to determine whether expected for-patient information has been uploaded; and

(e) in response to said checking indicating a lack of the automatic uploading of the expected for-patient information by said deadline, generating an expired deadline notification signal for retrieval by one or more of said medical service providers associated with the given patient, where the notification signal indicates [indicating] that the expected upload information [is] has not been timely stored into the second information storage segment of the given patient.--

--62. (Amended once) The machine-automated informing method of Claim 46 wherein at least part of one or both of said for-provider information and for-patient information can be automatically uploaded from an upload source and stored automatically in corresponding first and/or second information storage segments which are logically associated with a given patient, and where the method further comprises:

[comprising the step of: providing an upload source, wherein if]

(c) automatically checking to determine if a medical service provider [changes] has changed data in or added data to either one or both of said first and second [an] information storage segments, and

(d) in response to a determination by said checking that a medical service

provider has changed data, automatically blocking the upload source [can no longer] from uploading update information to either one of said corresponding first and second information storage segments of the given patient [in a message segment].--

(Claim 63 has been withdrawn without prejudice.)

[63. The method of claim 46, further comprising the step of: providing an upload source, wherein if a medical provider changes data in a mailbox, the upload source can no longer change data in the mailbox.]

-- 64. (Amended once) The machine-automated informing method of Claim 46 wherein at least part of one or both of said for-provider information and for-patient information can be automatically uploaded from an upload source and stored automatically in corresponding first and/or second information storage segments which are logically associated with a given patient, and where the method further comprises: [comprising the step of: providing an upload source, wherein if]

(c) automatically checking to determine if a medical provider [accesses] is or has accessed information in the second information storage segment of the given patient , and

(d) in response to a determination by said checking that a medical service provider has or is accessing for-patient information, automatically blocking the upload source [can no longer change] from changing the information in either one of said corresponding first and second information storage segments of the given patient [the information segment].--

-- 65. (Amended once) The machine-automated informing method of Claim 46 and further comprising:

(c) automatically checking to determine if a given patient is or has accessed for-patient information in a corresponding second information storage segment of the given patient; and

(d) in response to a determination by said checking that the given patient has or is accessing the for-patient information of the corresponding given patient's second information storage segment, automatically blocking [ , wherein] editing being made by a medical service provider to the first information storage segment which corresponds with the given patient's second information storage segment whose for-patient information has or is [prevented responsive to the message] being presented to the corresponding given patient.--

-- 66. (Amended once) The machine-automated informing method of Claim 46 and further comprising:

(c) automatically checking to determine if a given patient is or has accessed for-patient information in a corresponding second information storage segment of the given

patient; and

(d) in response to a determination by said checking that the given patient has or is accessing the for-patient information of the corresponding given patient's second information storage segment, automatically blocking [ , wherein] access being provided for [by] a medical service provider to the first information storage segment which corresponds with the given patient's second information storage segment whose for-patient information has or is [prevented responsive to the message] being presented to the corresponding given patient.--

-- 67. (Amended once) A machine-assisted method for managing corresponding for-patient messages that are to be delivered to corresponding ones of a plurality of patients who are subject to medical care services provided by one or more medical service providers associated with the respective patients, the machine-assisted message managing method comprising:

[providing a message in a medical messaging system, comprising the steps of:]

(a) providing a plurality of respective mailboxes for electronically storing and passing on for-patient messages to [accessible by a plurality of] respective patients, where the for-patient messages are reviewed and/or edited by corresponding medical service providers before being placed in for-patient areas of the mailboxes for pick up by the respective patients and where the mailboxes have message-placement timing indicators for indicating when corresponding, for-patient messages were placed for patient pick-up in the mailboxes; and [ , ]

(b) identifying a subset of messages among [obtaining a number of messages in] the plurality of messages placed for patient pick-up in the mailboxes, where the identified messages have not been retrieved by their corresponding patients and are indicated to have placement times within [stored by a medical provider during] a predetermined period of time.--

-- 68. (Amended once) The machine-assisted message managing method of Claim 67 and further comprising [the step of] :

(c) sorting the messages which have been placed for patient pick-up and not retrieved according to medical severity; and

(d) generating an alert signal [in response] which identifies a relatively more severe one of the sorted, for-patient messages [to a first message in the plurality of messages] which have not been retrieved by their respective patients.--

-- 69. (Amended once) The machine-assisted message managing method of Claim 67 and further comprising: [wherein]

(c) using an expert system to generate for-patient messages that are to be

placed in respective ones of the mailboxes [stores a message in the plurality of messages].--

-- 70. (Amended once) The machine-assisted message managing method of Claim 67 [.] wherein the step (b) of identifying a subset of messages includes identifying messages within the subset which belong to [obtaining step is for] a first specified patient among [in] the plurality of respective patients.--

-- 71. (Amended once) A machine-implemented method for managing corresponding for-patient messages that are intended to be delivered to corresponding ones of a plurality of patients who are subject to medical care services provided by one or more medical service providers associated with the respective patients, the machine-implemented message managing method comprising:

[providing a message in a medical messaging system, comprising the step of:]

(a) automatically identifying among the for-patient messages those that have not been timely retrieved by the corresponding patients and/or are otherwise not in compliance with predefined delivery rules; [providing a plurality of messages accessible by a plurality of respective patients;] and [.]

(b) presenting a list of such identified and noncomplying, for-patient messages together with corresponding [number of messages in the plurality of messages with] notification signals which indicate the nature of noncompliance to a machine user.--

-- 72. (Amended once) A machine-automated method [for] of keeping track of for-patient messages that are intended to be delivered to corresponding ones of a plurality of patients who are subject to different types of medical care services provided by one or more medical service providers associated with the respective patients, the machine-automated message tracking method comprising:

[providing a message in a medical messaging system, comprising the steps of:]

(a) automatically identifying among the for-patient messages those that have not been timely retrieved by the corresponding patients and/or are otherwise not in compliance with predefined delivery and/or retrieval rules; [providing a plurality of messages accessible by a plurality of respective patients;]

(b) generating alert notification signals of different types depending on relative medical importance of having the respective patients retrieve the respective noncomplying and for-patient messages which have not been retrieved by such respective patients or which are otherwise not in compliance with said predefined delivery and/or retrieval rules;

(c) obtaining a number of alert notification signals of a given type [in the plurality of messages]; and [.]

(d) presenting the obtained number of alert notification signals to a user.--



-- 73. (Amended once) A machine-assisted method for managing corresponding for-patient messages for delivery to corresponding ones of a plurality of patients who are subject to medical care services provided by one or more medical service providers associated with the respective patients, the machine-assisted message managing method comprising:

[providing a message in a medical messaging system, comprising the steps of:]

(a) providing a plurality of respective mailboxes for electronically storing and passing on for-patient messages to respective patients, and for electronically storing and passing on for-provider data to respective medical service providers, where the for-patient messages are to be derived from the for-provider data; and

[providing a message accessible by a patient; wherein the message includes a first information segment; and, ]

(b) after corresponding, for-provider data is loaded into the mailbox of a given patient, automatically presenting to a medical service provider, a selection of responsive actions that may be taken in response to the loaded for-provider data associated with the given patient [to the stored information in the first information segment].--

-- 74. (Amended once) The machine-assisted message managing method of Claim 73 [,] wherein the presented selection of responsive actions includes [is] a set of messages which may be selectively picked for inclusion in the for-patient message to be delivered to the given patient.--

-- 75. (Amended once) The machine-assisted message managing method of Claim [74,] 73 wherein plural for-patient messages can be placed into the mailbox of a given patient, the method further comprising [the step of]:

(c) testing the mailbox of the given patient for receipt by the given patient of each of the plural for-patient messages placed into the mailbox; and

(d) removing from the tested mailbox of the given patient each respective for-patient [the] message from the set of messages when the respective message is indicated to have been received by the given patient [receives the message].--

-- 76. (Amended once) The machine-assisted message managing method of Claim 73 [74, wherein] and further comprising:

(c) after corresponding, for-provider data is loaded into the mailbox of a given patient, automatically issuing to a medical service provider associated with the given patient, a corresponding notification signal indicating that the for-provider data has been loaded [the set of messages has associated notification signals].--

-- 77. (Amended once) The machine-assisted message managing method of Claim 76 wherein plural for-patient messages can be placed into the mailbox of a given patient, the method further comprising [the step of]:

(d) testing the mailbox of the given patient for receipt by the given patient of each of the plural for-patient messages placed into the mailbox; and

(e) removing from the tested mailbox of the given patient each respective for-patient [the] message from the set of messages when the respective message is indicated to have been received by the given patient [receives the message].--

(Claim 78 is withdrawn without prejudice.)

[78. The method of claim 76, further comprising the step of:  
removing the message from the set.]

-- 79. (Amended once) The machine-assisted message managing method of Claim 76 [,] and further comprising [the step of]:

(d) after issuing the corresponding notification signal, presenting the medical service provider with respective notification signal information and with a list of titles where the titles summarize in abbreviated form, contents of [the] respective for-patient messages which correspond with the respective notification signal information.--

(Claim 80 is withdrawn without prejudice.)

[80. The method of claim 73, wherein the selection is a menu of options.]

-- 81. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions is sorted by types of responsive actions and [message is categorized] in response to the for-provider data which has been loaded into the mailbox [message presented to the user].--

-- 82. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions includes [is] a set of notification signals.--

-- 83. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions includes [is] an option of recording a patient name where the to-be recorded patient name corresponds to the given patient associated with the for-provider data loaded into the mailbox of the given patient [corresponding to the message].--

-- 84. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions includes [is] a set of for-patient messages having respective information stored in respective information segments for delivery over a predetermined time period.--

-- 85. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions includes [is] a set of for-patient messages corresponding to [having] associated notification signals received by [a] the medical service provider.--

-- 86. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the presented selection of responsive actions includes [is] a set of for-patient messages corresponding to [having] associated notification signals which are categorized in response to the for-provider data [message] presented to [a] the medical provider.--

-- 87. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the [first information segment is] for-patient messages of the mailbox are accessible by the given patient only after the medical service provider is presented with said selection of responsive actions and the medical service provider makes a responsive choice.

-- 88. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the [first information segment] for-provider data is not accessible to the given patient but is [only] accessible [by a] to the medical service provider.--

-- 89. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein at least one of the for-provider data and for-patient messages in the mailbox of the given patient contains [the first information segment is] a corresponding patient name.--

-- 90. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the [first information segment] respective mailbox of a given patient contains a mailbox status signal indicating when the respective mailbox was accessed and which for-patient messages and/or for-provider data were referenced by the access [representing the message status].--

-- 91. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the selection of responsive actions includes providing at least one choice for editing a for-patient message.--

-- 92. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the selection of responsive actions includes an option of filling in [is] a data entry form.--

-- 93. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the selection of responsive actions includes an option of providing [further comprises] contact information.--

-- 94. (Amended once) The machine-assisted message managing method of Claim 73 [.] wherein the selection of responsive actions includes an option of exploring [is] a set of patient mailboxes corresponding to a supplied [selected in response to a] patient identifier.--

-- 95. (Amended once) A machine-augmented method for forming corresponding for-patient messages for delivery to corresponding ones of a plurality of patients who are subject to medical care services provided by one or more medical service providers associated with the respective patients, the machine-augmented message forming method comprising:

[providing a message in a medical messaging system, comprising the steps of:]

(a) providing a plurality of respective mailboxes for electronically storing and passing on for-patient messages to respective patients, and for electronically storing and passing on for-provider data to respective medical service providers, where the for-patient messages are to be derived from the for-provider data; and

[providing a message accessible by a patient; wherein the message includes at least one information segment; and, ]

(b) automatically presenting to a medical service provider, additional data which is [a signal] responsive to first data already [the] stored in at least one of said mailboxes [information in the at least one information segment].--

-- 96. (Amended once) The machine-augmented message forming method of Claim 95 [.] wherein the additional data includes [signal is] a summary of [the] a for-patient message.--

-- 97. (Amended once) The machine-augmented message forming method of Claim 95 [.] wherein the additional data includes [signal is] a notification signal which notifies a recipient of an alerted situation.--

-- 98. (Amended once) The machine-augmented message forming method of Claim 95 [.] wherein the additional data includes [signal is] patient test-result data [information] associated with the for-patient message.--

-- 99. (Amended once) A machine-implemented method for tracking status of corresponding for-patient messages that are to be delivered to corresponding ones of a plurality of patients who are subject to medical care services provided by one or more medical service providers associated with the respective patients, the machine-implemented message tracking method comprising:

[providing message status information in a medical messaging system, comprising the steps of: providing a plurality of patient messages;]

(a) placing a plurality of for-patient messages in corresponding electronic mailboxes for retrieval by corresponding patients;

(b) checking the electronic mailboxes to determine if corresponding for-patient messages in the checked mailboxes have been retrieved within corresponding ones of predefined retrieval deadlines; and

(c) selecting a subset of messages in the plurality of placed, for-patient messages [; and,] wherein each of the selected [message in the set of] messages is one that has not been retrieved by the respective patient before the corresponding retrieval deadline has

passed [a predetermined time].--

-- 100. (Amended once) The machine-implemented message tracking method of Claim 99 [.] wherein the selected subset is sorted by information contained in each of the messages in the subset of messages.--

-- 101. (Amended once) The machine-implemented message tracking method of Claim 99 [.] wherein the selected subset is sorted by time of placement of [the date of information storage in] each respective message in the subset of messages.--

-- 102. (Amended once) The machine-implemented message tracking method of Claim 99 [.] wherein the selected subset is sorted by identities of medical service providers who approved placement of the respective messages [a user who stored information in each message] in the subset of messages.--

-- 103. (Amended once) The machine-implemented message tracking method of Claim 99 [.] wherein the selected subset is sorted by identities of the patients for [to] whom the selected and nonretrieved messages were placed [is sent in the set of messages].--

-- 104. (Amended once) A machine-implemented method for sending an alerting [generating a] notification signal to a medical service provider who is providing medical care services for a given one of plural patients, the alert sending method comprising:  
[in a medical messaging system, comprising the steps of: providing a message including at least one information segment;]  
(a) providing at least one electronically-implemented mailbox for electronically storing and passing on for-patient messages to the given patient, and for electronically storing and passing on for-provider data segments to a respective one or more medical service providers who are providing medical care services for the given patient, where the for-patient messages may be derived from the for-provider data, and where time stamps are recorded indicating when respective for-patient messages are placed in the mailbox and/or when for-provider data segments are placed in the mailbox;  
[wherein a time value is stored in the at least one information segment; and,]  
(b) automatically comparing the placement time stamps of not yet retrieved ones of the for-patient messages and/or the for-provider data segments that had been placed in the mailbox against a current system time;  
(c) automatically generating an alerting notification signal when said comparing indicates one or more of the placed messages or data has not been retrieved

[received] within a predefined period of time after placement, where the notification signal indicates which message or data segment has not been timely retrieved; and [determined by comparing the stored time value with a present time]

(d) sending the generated notification signal for retrieval by one or more alertable parties .--

-- 105. (Amended once) The alert sending method of Claim 104, wherein the recorded time stamp value of a given message or data segment can be modified to in effect indicate a different time of placement for the given message or data segment.--

-- 106. (Amended once) The alert sending method of Claim 105 [104,] wherein only [the] an authorized medical service provider who is pre-associated with the given patient can modify the time stamp value of an already placed message for the given patient.--

-- 107. (Amended once) The alert sending method of Claim 104 [,] wherein the respective time stamps are recorded in [value is stored in a] respective ones of a plurality of for-patient messages and for-provider data segments .--

-- 108. (Amended once) The alert sending method of Claim 105 [104,] where the time stamp value of a given for-patient message can only be modified by the medical service provider [user] who stored for-patient [stores] information contained in the given, placed message.--

-- 109. (Amended once) The alert sending method of Claim 104 [,] wherein only [the] a machine user who stored for-patient [that stores] information into a placed but not timely retrieved one of the messages can [an information segment] receive [-s] the correspondingly sent alerting notification signal, if any.--

-- 110. (Amended once) The alert sending method of Claim 104 [,] wherein an upload source can automatically upload one or both of for-patient information and for-provider data into the mailbox of the given patient, said method further comprising:

(e) enabling the upload source which uploaded the [that stores] information into the given mailbox to assign a respective [message assigns a] recipient for the corresponding notification signal, if any, which is generated due to lack of timely retrieval of the corresponding for-patient message or for-provider data segment.--

-- 111. (Amended once) The alert sending method of Claim 104 [,] where the time stamp value for a correspondingly placed for-patient message or for-provider data segment is determined [is stored] by an expert system.--

-- 112. (Amended once) The alert sending method of Claim 104 [.] wherein a plurality of upload sources can each automatically upload respective ones of the for-patient information and for-provider data into the mailbox of the given patient, said method further comprising:

(e) enabling a first of the upload sources to define the corresponding [where] time stamp value even though [is stored by a first upload source and] the for-patient message is uploaded [stored] by a second upload source.--

-- 113. (Amended once) The alert sending method of Claim 104 [.] wherein for-patient messages can be edited after placement of such for-patient messages, but wherein editing by a medical service provider [to] of the message is prevented in response to machine detection that the given [responsive to the] for-patient message has been retrieved by [being presented to] the patient.--

(Claim 114 is withdrawn without prejudice.)

[114. The method of claim 104, wherein access by a medical provider to the message is prevented responsive to the message being presented to the patient.]

-- 115. (Amended once) A machine-implemented method for providing [a] notification of changed status [signal] in a medical information messaging system, the notification providing method comprising [the steps of]:

[providing a message including the at least one information segment;  
providing an upload source that stores information in the at least one information segment; and,]

(a) providing at least one machine-implemented mailbox for storing and passing on to a corresponding patient, one or more for-patient messages intended for receipt by the given patient, the at least one mailbox being further structured to receive, store and pass on to a respective one or more medical service providers, corresponding for-provider data segments relating to medical care services for the corresponding patient, wherein one or more upload sources can each automatically upload respective ones of for-patient information segments and for-provider data segments into the mailbox of the corresponding patient; and

(b) automatically generating and sending a change of status [wherein a] notification signal to a notifiable party in response to one of said [is generated responsive to the] upload sources changing information stored in [the] at least one of the for-patient message segments and for-provider data segments [information segment] subsequent to respective access of at least one of the for-patient message segments and for-provider data segments respectively by the corresponding patient and an associated medical service provider [at least one information segment].--



-- 116. (Amended once) A machine-implemented method for providing [a] notification of failure of timely data or message retrieval [signal] in a medical information messaging system, the notification providing method comprising [the steps of]:

[providing a message with a first information segment; wherein the message is associated with a patient; and, ]

(a) providing at least one machine-implemented mailbox for storing and passing on to a corresponding patient, one or more for-patient messages intended for receipt by the given patient, the at least one mailbox being further structured to receive, store and pass on to a respective one or more medical service providers, corresponding for-provider data segments relating to medical care services provided for the corresponding patient, wherein for-provider data segments are not accessible to patients, and wherein one or more upload sources can each automatically upload respective ones of for-patient information segments and for-provider data segments into the mailbox of the corresponding patient; and

(b) automatically generating and sending a first change of status [wherein a] notification signal to a notifiable party [is generated when] in response to for-provider, first medical information being placed in one of the mailboxes for retrieval by a corresponding medical service provider [is stored in the first information segment] and the for-provider first medical information not being retrieved by the corresponding medical service provider by an established first deadline [in the first segment is not accessible by the patient].--

-- 117. (Amended once) The notification providing method of Claim 116 [.] and further comprising [the step of]:

(c) removing the first notification signal when for-patient, second medical information is stored in the corresponding mailbox, in a section of the mailbox which [a second information segment that] is accessible by the corresponding patient.--

-- 118. (Amended once) The notification providing method of Claim 117 [.] and further comprising [the step of]:

(d) recording in a machine, a designation which identifies [providing] a designated medical service provider as being responsible for providing the for-patient, second medical information which is to be stored in the patient accessible section of the mailbox [in the second information segment]; and,

(e) automatically causing [wherein] the first change of status notification signal to be [is] sent to the designated medical service provider.--

-- 119. (Amended once) The notification providing method of Claim 117 [.] and

further comprising [the step of]:

(d) recording in a machine, a designation which identifies [providing] a designated upload source responsible for providing by a predefined second time deadline, one or more for-provider data segments relating to one or more medical care services requested for the corresponding patient; [information in the second information segment;] and,

(e) automatically causing [wherein the] a noncompliance notification signal [is] to be sent to the corresponding medical service provider if said predefined second time deadline has passed and the designated upload source has not uploaded the one or more for-provider data segments relating to the one or more medical care services requested for the corresponding patient.--

-- 120. (Amended once) A machine-implemented method for providing [a] notification of failure of timely data or message storage or retrieval [signal] in a medical information messaging system, the notification providing method comprising [the steps of]:  
[providing a message containing at least one information segment; ]

(a) providing at least one machine-implemented information forwarding means for storing and passing on to a corresponding patient, one or more for-patient messages intended for receipt by the given patient, the at least one information forwarding means being further structured to receive, store and pass on to a respective one or more medical service providers, corresponding for-provider data segments relating to medical care services provided for the corresponding patient, wherein for-provider data segments are not accessible to patients, and wherein one or more upload sources can each automatically upload respective ones of for-patient information segments and for-provider data segments into the information forwarding means of the corresponding patient; and

(b) automatically generating and sending a first notification signal to a notifiable party in response to for-provider, first medical information being placed in one of the information forwarding means by [wherein] an upload source; and  
[stores information in the at least one information segment; and,  
wherein a notification signal is generated responsive to 1) information stored in the at least one information segment and, 2) the information segment]

(c) automatically generating and sending a second notification signal to a notifiable party in response to the for-provider, first medical information not being accessed by a medical service provider [user] within a predetermined time interval.--

-- 121. (Amended once) The notification providing method [system] of Claim 120 [.] wherein the first notification signal cannot be removed from the system until [a] the medical service provider accesses the for-provider, first medical information [at least one information segment] associated with the first notification signal.--

-- 122. (Amended once) The notification providing method [system] of Claim 120 [.] wherein plural ones of the first notification signals are sorted [is categorized] in the medical information messaging system in accordance with whether said [response to the] predetermined time interval is more or [being] less than a predefined threshold value.--

-- 123. (Amended once) The notification providing method [system] of Claim 120 [.] and further comprising: [wherein the]

(d) allowing one of said upload sources to record in the messaging system, an assignment that [stores information in the at least one information segment] assigns a respective medical service provider as a to-be-notified recipient for the first notification signal.--

-- 124. (Amended once) The notification providing method [system] of Claim 120 [.] and further comprising: [wherein the]

(d) allowing the corresponding upload source which provided the for-provider, first medical information to be designated in the system as a notifiable party which is to receive said second [receives the] notification signal.--

-- 125. (Amended once) The notification providing method of Claim 120 [.] and further comprising: [wherein the]

(d) causing at least part of said one or more for-patient messages or at least part of said for-provider data segments to be automatically generated [information is stored] by an expert system.--

-- 126. (Amended once) A notifications managing system which automatically sends alerting notifications to medical service providers who are responsible for receiving and analyzing, editing and/or forwarding medical care related information to respective medical patients, the notifications managing system comprising:

[method for providing a notification signal in a medical information messaging system, comprising the steps of: providing a message containing at least one information segment; wherein]

(a) a plurality of first storage areas into each of which an automated and corresponding upload source can automatically store corresponding first medical care [stores] information relating to a corresponding patient;

[in the at least one information segment; wherein]

(b) a first notification signal generator, operatively coupled to the plurality of first

storage areas and structured to automatically generate corresponding, first notification signals upon detection that a given [is generated when the] upload source has and/or has not stored corresponding first medical care [stores] information in the first storage area of a related patient [at least one information segment]; and [,wherein]

(c) a recipient designator which designates notification recipients and is controllable by at least one upload source so that the at least one upload source can [assign a] designate at least one recipient who is to receive a corresponding first notification signal relating to storage and/or retrieval activity involving a corresponding one of the first storage areas.--

-- 127. (Amended once) The notifications managing system [method] of Claim 126, wherein the at least one upload source which controls the recipient designator includes [is] an expert system that uses a rules database of the notifications managing system to determine which at least one recipient is to be designated to receive a corresponding first notification signal.

-- 128. (Amended once) A machine-assisted method for informing patients about developments in medical care services being provided for such patients, the machine-assisted informing method comprising:  
[for providing a notification signal in a medical messaging system comprising the steps of: providing a patient message containing at least one information segment;]

(a) designating [wherein] at least one machine user [is] as being responsible for placing layperson understandable information regarding a medical condition of a given patient in [the at least one information segment] a corresponding machine-implemented mailbox that is accessible by [a] the given patient; and

(b) automatically detecting attempts by respective patients to access the layperson understandable information, if any, in their corresponding machine-implemented mailboxes:

(c) automatically sending an access-attempt [wherein a] notification signal [is generated and is sent] to the designated at least one user in response to said detection of an access attempt by a respective patient  
[responsive to the patient attempting to access an information segment; and, wherein a medical provider is designated as responsible for placing the patient message].

-- 129. (Amended once) A computer-driven method for providing layperson-understandable information to respective medical patients, where the respectively provided, layperson information relates to respective medical conditions of respective ones of the patients, the information providing method comprising:  
[a notification signal in a medical messaging system, comprising the steps of:

providing a message having at least one information segment;]

(a) providing a computer controlled mailbox into which for-provider data can be stored, where the for-provider data is unlikely to be easily understood by a lay patient;

(b) designating within the mailbox, at least one medical service provider who is to be alerted when for-provider data is loaded into the mailbox; and

[wherein the at least one information segment stores information regarding notification of at least one user; and, wherein]

(c) sending a notification signal to the designated at least one medical service provider of a corresponding mailbox in response to for-provider data [is generated responsive to the information] being stored in the corresponding mailbox [at least one information segment].--

-- 130. (Amended once) The information providing method [system] of Claim 129, and further comprising:

(d) presenting a list of layperson-understandable message fragments to choose from to the medical service provider who receives [wherein] the notification signal [is sent to a medical provider].--

-- 131. (Amended once) The information providing method of Claim 129, and further comprising:

(d) recording an ordering of a medical test for a given patient; and

(e) forcing the carrying out of said designating of the at least one medical service provider [wherein the storing of information regarding notification of the at least one user is generated] when said recording of the ordered [a] test occurs for the given patient [is ordered for a patient].--

-- 132. (Amended once) A machine-implemented method for verifying completion of medical tests ordered for respective ones of plural patients, the verifying method comprising: [providing a notification signal, comprising the steps of: providing a message having at least a first information segment;]

(a) identifying [providing] an upload source that is to upload test result data for a given patient;

(b) storing in a message-conveying mailbox associated with the given patient, a test identifier [an identifying value] specific to a respective patient test that is to be performed on the given patient; [in the first information segment by a user;]

(c) providing the test identifier [identifying value] to the identified upload source;

(d) providing a time indicator [value] to the identified upload source; and,

(e) generating a test-complete [wherein, a] notification signal in response to detection of test result data being uploaded into the associated message-conveying mailbox of the given patient, where the uploaded test result data corresponds to [is generated responsive to the upload source storing information associated with] the test identifier stored in the associated message-conveying mailbox

[identifying value in the first information segment within a time interval determined by the time value].--

-- 133. (Amended once) A machine-managed method for keeping patients and/or medical service providers informed about recent and/or urgent developments in medical care services being provided for such patients, the machine-managed informing method comprising:

(a) providing a plurality of electrically accessible mailboxes each structured for receiving initial messages, storing the initial messages, allowing for analysis, editing and/or copying of the initial messages and forwarding of at least one of the stored initial, analyzed, edited, and/or copied messages for retrieval by an identified recipient, where at least one of the messages contains medically relevant information that is relevant to medical treatment of a corresponding patient;

[for generating a set of messages with notification signals in a medical messaging system, comprising the steps of: providing a plurality of messages; providing at least one set of messages in the plurality of messages; wherein the at least one set of messages contains]

(b) automatically generating at least one respective notification signal in response to at least one of the receipt in a given mailbox of an initial message or the analysis of the initial message or the editing or copying of the message or the forwarding of such a mailbox-held message for retrieval by an identified recipient, where the at least one generated notification signal is logically associated with a particular notification type that is indicative of the urgency and/or nature of the underlying message and where the at least one generated notification signal identifies the underlying message and/or indicates the time when the underlying message was initially received or otherwise manipulated; and

[, wherein one or more notification signals is generated for each message in the at least one set]

(c) automatically storing the generated, at least one notification signal for retrieval by a to-be-notified party, where the storage allows for ordering of plural notification signals according to the urgency and/or nature of the correspondingly underlying messages of the stored notification signals.--

-- 134. (Amended once) The machine-managed informing method of Claim 133, and further comprising: [the step of]

(d) in response to retrieval by a to-be-notified party of one or more of the notification signals stored for the to-be-notified party, automatically accessing the corresponding mailboxes which hold the underlying messages that are logically associated with the retrieved notification signals [obtaining the number of messages in the at least one set].--

-- 135. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) sorting notification signals according to time of generation of the notification signals; and

(e) automatically accessing the corresponding mailboxes of [wherein the at least one set contains messages wherein the] one or more notification signals [has] which have been generated within a [predetermined] predefined period of time.--

-- 136. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) ordering notification signals according to the urgency and/or nature of the correspondingly underlying messages; and

(e) automatically accessing the corresponding mailboxes of generated notification signals that are classified as a predefined [wherein the at least one set is presented according to the] type of notification signal.--

-- 137. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) ordering notification signals according to the identities of the to-be-notified parties; and

(e) automatically accessing the corresponding mailboxes of generated notification signals that are identified for retrieval by a particular to-be-notified party [wherein the at least one set is sorted according to a user].--

-- 138. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) ordering notification signals according to automated expert analysis of the urgency of the underlying messages; and

(e) automatically accessing the corresponding mailboxes of generated notification signals that are identified by their ordering as corresponding to underlying messages having at least a predefined level of urgency [wherein the at least one set is presented in an order determined by information in the respective messages].--

-- 139. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) automatically displaying [wherein the] at least one set of messages [is presented] in a predetermined order according to the urgencies indicated by the corresponding [status on the one or more] notification signals.--

-- 140. (Amended once) The machine-managed informing method of Claim 133, and further comprising:

(d) automatically displaying [wherein the] at least one set of messages [presented] in a predetermined order according to [the] a predefined classification of the types of one or more of the generated notification signals [types].--

141. A method for providing a message in medical messaging system, comprising the step of:

presenting to a user prompt responsive to a number of times a menu has been accessed by the user.

142. A method for providing a message in medical messaging system, comprising the step of:

presenting a user menu selection responsive to a number of times a menu has been accessed by a user.

143. A method for providing a message in a medical messaging system, comprising the step of:

presenting a user a screen presentation responsive to a number of times a screen has been accessed by a user.

-- 144. **(New)** The automated medical messaging system of **Claim 43** wherein said upload information includes uploaded test result information generated from medical tests performed on the given patient.--

-- 145. **(New)** The automated medical messaging system of **Claim 43** wherein said stored first information can be changed by an authorized upload source that supplied said upload information.--

-- 146. **(New)** The automated medical messaging system of **Claim 43** and further comprising:

(c) an alert generator operatively coupled to detect accesses to said first and second information storage and retrieval sections, the alert generator generating alert transmissions in response to one or more of the detected accesses or lack of detection of such accesses and in accordance with predefined access deadline limits.--



- 147. **(New)** The automated medical messaging system of **Claim 43** and further comprising:  
(c) an alert generator operatively coupled to detect accesses to said first and second information storage and retrieval sections, the alert generator generating alert transmissions in response to one or more of the detected accesses or lack of detection of such accesses and in accordance with alert controls defined by an expert rules system.--
- 148. **(New)** The automated medical messaging system of **Claim 43** wherein said stored first information includes vocalized chart notes created by the authorized medical service provider.--
- 149. **(New)** The automated medical messaging system of **Claim 43** wherein said stored first information includes chart notes created by the authorized medical service provider when one or more tests are ordered for the patient and test result information obtained at a later time.--
- 150. **(New)** The machine-managed messaging method of **Claim 44** wherein:  
(a.1) said creating of the first information includes automatically loading upload information relating to the given patient into the first information storage and retrieval section to thereby define at least part of said first information; and  
(c.1) said access controlling of the second information includes automatically blocking the given patient from retrieving the second information until the medical service provider has accessed the upload information.--
- 151. **(New)** The machine-managed messaging method of **Claim 44** and further comprising:  
(d) automatically notifying the medical service provider of the occurrence of said automatic loading of the upload information.--
- 152. **(New)** The machine-managed messaging method of **Claim 151** and further comprising:  
(e) automatically transmitting corresponding alert notifications if said automatic loading of the upload information does not occur by a predefined deadline and/or if said accessing by the medical service provider of the upload information does not occur by a predefined deadline.--
- 153. **(New)** The machine-assisted message managing method of **Claim 67** and further comprising:  
(c) sorting the messages which have been placed for patient pick-up and not retrieved according to medical severity; and  
(d) presenting a medical service provider with a ranked list of the placed, for-patient messages which have not been picked up by their respective patients, where the ranking is according to predefined severity types that indicate how medically severe are the failures of the corresponding patient to have retrieved their respective, for-patient messages.--

-- 154. **(New)** The machine-assisted informing method of **Claim 128** and further comprising:

(a.1) designating for each patient, at least one medical service provider as a machine user who is responsible for placing said layperson understandable information in the machine-implemented mailbox of the respective patient.--

-- 155. **(New)** The machine-assisted informing method of **Claim 128** and further comprising:

(d) automatically indicating in a sent access-attempt notification signal that a respective patient is attempting to access a corresponding machine-implemented mailbox when there is no layperson understandable information placed in the corresponding mailbox.--

-- 156. **(New)** A machine-implemented notifying method which is able to notify responsible parties of notification-worthy events occurring in an automation-assisted medical messaging system, where at least two of the following messaging transactions can take place in the medical messaging system:

(0.1) a medical service provider orders one or more medical tests to be performed on a given patient where one or more deadlines may be indicated for the performance of the tests and/or for the reporting of corresponding test results to the medical service provider;

(0.2) an upload source automatically uploads test results and/or other for-provider information into a machine-implemented mailbox, where the mailbox corresponds to a given patient, and where the mailbox is structured to allow a medical service provider to access the uploaded test results and/or other for-provider information of the corresponding mailbox;

(0.3) the upload source automatically uploads test result changes and/or other informational changes into the machine-implemented mailbox of the given patient;

(0.4) an expert system automatically analyzes test results and/or other for-provider information, generates a notification urgency value for the analyzed information, where the generated notification urgency value is indicative of whether the a corresponding predefined threshold has been exceeded where the threshold has been established for the analyzed type of test results and/or other for-provider information;

(0.5) a medical service provider places a message for retrieval by a given patient where the placed message asks the given patient to contact the medical service provider, and where said requested contacting by the given patient may have a time deadline associated therewith;

(0.6) a medical service provider is allowed to review uploaded test results and/or other for-provider information uploaded into the machine-implemented mailbox of a given patient;

(0.7) after review of uploaded test results and/or other for-provider information, a medical service provider is allowed to place and/or approve for placement, corresponding, for-patient information in the mailbox for retrieval by the given patient, where one or more deadlines may be indicated for retrieval by the patient of the placed, for-patient information; and

(0.8) a patient is allowed to attempt to access a corresponding patient mailbox even if there is no for-patient information placed in that mailbox;

said notifying method comprising:

(a) testing the messaging transactions of the medical messaging system and responsively generating corresponding alerts for retrieval by one or more alertable parties, where the generated and retrievable alerts can be deleted after they are retrieved, where the generated and retrievable alerts are designated as belonging to at least one category in a set of predefined alert categories, where the predefined alert categories include at least two of the following alert categories:

(a.1) a **panic alert** category indicative of a failure of an alertable party to timely retrieve a placed alert of a lesser urgency than the panic alert being currently generated, where timely retrieval of the less urgent alert is constituted by retrieval of the less urgent alert before expiration of a deadline established for retrieval of the less urgent alert;

(a.2) a **patient retrieval alert** category indicative of a failure of a patient to timely retrieve a placed, for-patient message before expiration of a deadline established for retrieval of the placed, for-patient message;

(a.3) a **missing message alert** category indicative of a failure of a responsible party to timely place a for-patient message in a corresponding mailbox before expiration of a deadline established for placing the for-patient message;

(a.4) a **test noncompliance alert** category indicative of a failure of a corresponding one or more test results to be uploaded into a given mailbox before expiration of a respective one or more deadlines established for completion of correspondingly ordered tests and for reporting of the corresponding test results;

(a.5) a **traced test noncompliance alert** category indicative of a failure of a corresponding one or more of plural test results to be uploaded into a given mailbox before expiration of a respective one or more deadlines established for completion of a correspondingly ordered set of plural tests, where the plural tests are pre-designated as belonging to a traced set of tests;

(a.6) a **traced test completion alert** category indicative of successful and timely uploading of a corresponding one or more of plural test results into a given mailbox before expiration of a respective one or more deadlines established for completion of a correspondingly ordered set of plural tests, where the plural tests are pre-designated as belonging to a traced set of tests;

(a.7) a **changed upload alert** category indicative of a change of upload information in a given mailbox after a medical service provider has accessed for-provider information that was earlier uploaded into the given mailbox, where change of upload information alters validity of the earlier uploaded information;

(a.8) a **test completion alert** category indicative of a successful uploading of a corresponding one or more test results into a given mailbox;

(a.9) an **upload alert** category indicative of for-provider information having been automatically uploaded into a given mailbox where the upload source is indicating via the upload alert, a desire for the medical service provider to be aware of the automatically uploaded, for-provider information;

(a.10) a **patient attempt alert** category indicative of a patient attempting to retrieve for-patient information from a mailbox that does not contain for-patient information; and

(a.11) a **timed upload alert** category indicative of for-provider information having been automatically uploaded into a given mailbox where the upload source is indicating via the timed upload alert, a desire for the medical service provider to be

aware of the automatically uploaded, for-provider information before expiration of an established deadline;

(b) collecting generated alerts that have not yet been deleted and determining the respective categories into which the collected alerts belong; and

(c) presenting to a medical service provider and/or to another responsible and notifiable party information indicating the category of one or more of the collected alerts.--

-- 157. **(New)** The machine-implemented notifying method of Claim 156 wherein the at least two alert categories include said **test completion alert** category (a.8).--

-- 158. **(New)** The machine-implemented notifying method of Claim 156 wherein the at least two alert categories include said **test noncompliance alert** category (a.4).--

-- 159. **(New)** The machine-implemented notifying method of Claim 156 wherein the at least two alert categories include said **changed upload alert** category (a.7).--

-- 160. **(New)** The machine-implemented notifying method of Claim 156 wherein the at least two alert categories include said **patient attempt alert** category (a.10).--

-- 161. **(New)** The machine-implemented notifying method of Claim 156 wherein the at least two alert categories include said **timed upload alert** category (a.11) and where the upload source has determined that the uploaded information deserves the issuance of a panic alert if the timed upload alert is not responded to before expiration of the established deadline.--

-- 162. **(New)** The machine-implemented notifying method of Claim 156 wherein said predefined alert categories are ordered according to a predefined priority scheme and the step of presenting includes

(c.1) presenting information about alerts in a higher priority one of said at least two alert categories to the medical service provider and/or other responsible and notifiable party before presenting information about alerts in a lower priority one of said at least two alert categories.--

-- 163. **(New)** The machine-implemented notifying method of Claim 162 wherein the at least two alert categories include said **panic alert** category (a.1) and the panic alert category is ordered as the highest priority one of said predefined alert categories.--

-- 164. **(New)** The machine-implemented notifying method of Claim 156 wherein said predefined alert categories are ordered according to a predefined priority scheme and the step of presenting includes

(c.1) presenting information about how many collected alerts are present in a given one or more of said at least two alert categories to the medical service provider and/or other responsible and notifiable party before presenting more detailed information about the alerts of the one or more alert categories.--

- 165. **(New)** The machine-implemented notifying method of Claim 164 wherein said information about how many collected alerts are present in a given one or more of said at least two alert categories is machine-vocalized to the medical service provider and/or other responsible and notifiable party.--
- 166. **(New)** The machine-implemented notifying method of Claim 156 wherein the predefined alert categories, to which respective ones of the generated and retrievable alerts are designated, include:
  - (a.12) at least four of said categories (a.1) through (a.11).--
- 167. **(New)** The machine-implemented notifying method of Claim 156 wherein the predefined alert categories, to which respective ones of the generated and retrievable alerts are designated, include:
  - (a.12) at least eight of said categories (a.1) through (a.11).--
- 168. **(New)** An automated notification system for notifying responsible parties of notification-worthy events occurring in an automation-assisted medical messaging system, where at least two of the following messaging transactions can take place in the medical messaging system:
  - (0.1) a medical service provider orders one or more medical tests to be performed on a given patient where one or more deadlines may be indicated for the performance of the tests and/or for the reporting of corresponding test results to the medical service provider;
  - (0.2) an upload source automatically uploads test results and/or other for-provider information into a machine-implemented mailbox, where the mailbox corresponds to a given patient, and where the mailbox is structured to allow a medical service provider to access the uploaded test results and/or other for-provider information of the corresponding mailbox;
  - (0.3) the upload source automatically uploads test result changes and/or other informational changes into the machine-implemented mailbox of the given patient;
  - (0.4) an expert system automatically analyzes test results and/or other for-provider information, generates a notification urgency value for the analyzed information, where the generated notification urgency value is indicative of whether the a corresponding predefined threshold has been exceeded where the threshold has been established for the analyzed type of test results and/or other for-provider information;
  - (0.5) a medical service provider places a message for retrieval by a given patient where the placed message asks the given patient to contact the medical service provider, and where said requested contacting by the given patient may have a time deadline associated therewith;
  - (0.6) a medical service provider is allowed to review uploaded test results and/or other for-provider information uploaded into the machine-implemented mailbox of a given patient;
  - (0.7) after review of uploaded test results and/or other for-provider information, a medical service provider is allowed to place and/or approve for placement, corresponding, for-patient information in the mailbox for retrieval by the given patient, where one or more deadlines may be indicated for retrieval by the patient of the placed, for-patient information; and
  - (0.8) a patient is allowed to attempt to access a corresponding patient mailbox even if there is no for-patient information placed in that mailbox;

said automated notification system comprises:

(a) one or more alert event detectors which monitor the messaging transactions of the medical messaging system and responsively generate corresponding alerts for retrieval by one or more alertable parties, where the generated and retrievable alerts can be deleted after they are retrieved, where the generated and retrievable alerts are machine designated as belonging to at least one category in a set of predefined alert categories, where the predefined alert categories include at least two of the following alert categories:

(a.1) a **panic alert** category indicative of a failure of an alertable party to timely retrieve a placed alert of a lesser urgency than the panic alert being currently generated, where timely retrieval of the less urgent alert is constituted by retrieval of the less urgent alert before expiration of a deadline established for retrieval of the less urgent alert;

(a.2) a **patient retrieval alert** category indicative of a failure of a patient to timely retrieve a placed, for-patient message before expiration of a deadline established for retrieval of the placed, for-patient message;

(a.3) a **missing message alert** category indicative of a failure of a responsible party to timely place a for-patient message in a corresponding mailbox before expiration of a deadline established for placing the for-patient message;

(a.4) a **test noncompliance alert** category indicative of a failure of a corresponding one or more test results to be uploaded into a given mailbox before expiration of a respective one or more deadlines established for completion of correspondingly ordered tests and for reporting of the corresponding test results;

(a.5) a **traced test noncompliance alert** category indicative of a failure of a corresponding one or more of plural test results to be uploaded into a given mailbox before expiration of a respective one or more deadlines established for completion of a correspondingly ordered set of plural tests, where the plural tests are pre-designated as belonging to a traced set of tests;

(a.6) a **traced test completion alert** category indicative of successful and timely uploading of a corresponding one or more of plural test results into a given mailbox before expiration of a respective one or more deadlines established for completion of a correspondingly ordered set of plural tests, where the plural tests are pre-designated as belonging to a traced set of tests;

(a.7) a **changed upload alert** category indicative of a change of upload information in a given mailbox after a medical service provider has accessed for-provider information that was earlier uploaded into the given mailbox, where change of upload information alters validity of the earlier uploaded information;

(a.8) a **test completion alert** category indicative of a successful uploading of a corresponding one or more test results into a given mailbox;

(a.9) an **upload alert** category indicative of for-provider information having been automatically uploaded into a given mailbox where the upload source is indicating via the upload alert, a desire for the medical service provider to be aware of the automatically uploaded, for-provider information;

(a.10) a **patient attempt alert** category indicative of a patient attempting to retrieve for-patient information from a mailbox that does not contain for-patient information; and

(a.11) a **timed upload alert** category indicative of for-provider information having been automatically uploaded into a given mailbox where the upload source is

indicating via the timed upload alert, a desire for the medical service provider to be aware of the automatically uploaded, for-provider information before expiration of an established deadline;

(b) an alerts collector which collects generated alerts that have not yet been deleted and identifies the respective categories into which the collected alerts belong; and

(c) an alerts presenter which can present to a medical service provider and/or to another responsible and notifiable party information indicating the category of one or more of the collected alerts.--

-- 169. **(New)** The automated notification system of Claim 168 wherein said predefined alert categories are ordered according to a predefined priority scheme and the alerts presenter includes:

(c.1) a presentation prioritizer which causes presentation of information about alerts in a higher priority one of said at least two alert categories to surpass presentation of information about alerts in a lower priority one of said at least two alert categories.--

-- 170. **(New)** The automated notification system of Claim 169 wherein said surpassing of presentation includes at least one of serially presenting the higher priority information before the lower priority information, or listing the higher priority information before the lower priority information.--

-- 171. **(New)** The automated notification system of Claim 169 wherein said presentation of information includes indicating how many collected alerts are present in a given one or more of said at least two alert categories.--

-- 172. **(New)** The automated notification system of Claim 169 wherein said presentation of information about the alerts includes a machine-vocalized presentation.--

-- 173. **(New)** The automated notification system of Claim 168 wherein the predefined alert categories, to which respective ones of the generated and retrievable alerts are designated, include at least eight of said categories (a.1) through (a.11).--

-- 174. **(New)** A machine-implemented alert forwarding method which is able to alert responsible parties of alert-worthy events occurring in an automation-assisted medical messaging system, wherein operations within the medical messaging system are characterized by:

(0.1) a medical service provider orders one or more medical tests to be performed on a given one or more patients;

(0.2) corresponding test results are generated;

(0.3) a machine-implemented upload source automatically uploads the generated test results and/or corresponding other for-provider information into one or more machine-implemented mailboxes, where each mailbox is structured to allow a medical service provider to access the uploaded test results and/or other for-provider information;

(0.4) an expert system automatically analyzes the test results and/or other for-provider information and generates an alert flag for the analyzed information if the analyzed information is outside of predefined bounds;

(0.5) the generated alert flags are logically associated with the uploaded test

results and/or other for-provider information uploaded into the machine-implemented mailbox;

(0.6) the generated alert flags are assigned deadlines by which review is to occur of their corresponding uploaded test results and/or other uploaded for-provider information;

(0.7) a medical service provider is allowed to review uploaded test results and/or other for-provider information uploaded into the machine-implemented mailbox;

(0.8) one or more, supplementally notifiable persons are designated;

(0.9) the medical service provider and/or the one or more, supplementally notifiable persons can be presented with respective alert indicators corresponding to said, generated alert flags, if any;

(0.10) inhibiting deletion of the associated alert flag, if any, of uploaded test results and/or other uploaded for-provider information until the corresponding uploaded information is reviewed;

said alert forwarding method comprising:

(a) automatically finding undeleted alert flags and determining if review by a responsible medical service provider has taken place for the associated uploaded test results and/or other uploaded for-provider information; and

(b) if the assigned deadline of the corresponding and not-yet-deleted alert flag has passed and if it is automatically determined that a responsible medical service provider has not yet reviewed the logically-associated, uploaded test results and/or other uploaded for-provider information, then automatically forwarding a corresponding notification alert signal to at least one of said supplementally notifiable persons where the notification alert signal identifies the uploaded information that has not yet been reviewed.--

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